



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,801	09/23/2003	Winston Zonh Ho		4093

7590 08/28/2006

Winston Zonh Ho
14541 Langhill Drive
Hacienda Heights, CA 91745

EXAMINER

KISH, JAMES M

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,801

Applicant(s)

HO ET AL.

Examiner

James Kish

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/23/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8-11, 16, 18-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan et al. (US Patent No. 6,175,759). Chan discloses a non-invasive multispectral energy system made up of a transilluminating radiating means that illuminates soft tissues that have been treated with a contrast agent (see Abstract). It is an object of the invention to provide a system for early detection of breast cancer and internal bleeding. A diode laser is used to illuminate the area of interest at wavelengths from a range between 750 nm and 1,000 nm. The preferred contrast agent is indocyanine green, or ICG (column 1, lines 36-51). A recommended dosage of ICG is 400 micrograms/kilogram, or 0.4 mg/kg (column 5, lines 60-62). It has been proven that is it possible to detect less than or equal to 5 grams of ICG through 2 cm of tissue (column 5, lines 21-26). The ICG in a tumor or blood pool will be excited by a 780 nm gallium arsenide diode laser. The fluorescent emission at the surface will be filtered at 835 nm before detection in the CCD camera (column 6, lines 1-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 7, 14-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable solely over Chan et al. Chan discloses a non-invasive multispectral energy system made up of a transilluminating radiating means that illuminates soft tissues that have been treated with a contrast agent (see Abstract).). It is an object of the invention to provide a system for early detection of breast cancer and internal bleeding. A diode laser is used to illuminate the area of interest at wavelengths from a range between 750 nm and 1,000 nm. The preferred contrast agent is indocyanine green, or ICG (column 1, lines 36-51). A recommended dosage of ICG is 400 micrograms/kilogram, or 0.4 mg/kg (column 5, lines 60-62). It has been proven that is it possible to detect less than or equal to 5 grams of ICG through 2 cm of tissue (column 5, lines 21-26). The ICG in a tumor or blood pool will be excited by a 780 nm gallium arsenide diode laser. The fluorescent emission at the surface will be filtered at 835 nm before detection in the CCD camera (column 6, lines 1-4).

Claims 2-3, 12-13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. in view of Haaland et al (US Patent No. 5,596,992).

Art Unit: 3737

Chan discloses a non-invasive multispectral energy system made up of a transilluminating radiating means that illuminates soft tissues that have been treated with a contrast agent. However, Chan does not explicitly disclose an optical fiber to deliver and detect the light used to illuminate the area of interest. Haaland teaches a fiber optic probe (see Figure 7) used to irradiate an area of interest. The received spectra are used to classify tissue types, such as cancerous tissue of the cervical or colorectal area (column 1, lines 59-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a fiber optic probe, such as that taught by Haaland, in the invention disclosed by Chan to provide a method for delivering and receiving light used for spectral analysis to and from the area of interest.

Conclusion

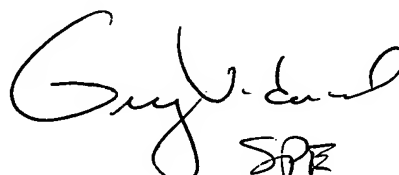
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK


SPR
TC 3700